Claims

What is claimed is:

1. An implant for delivery of a drug, comprising:

an implant body capable of heating by exposure to an electromagnetic field; and

a drug material applied to the implant body, said drug material being substantially effective only when the implant has been heated by exposure to the electromagnetic field and heat energy from the implant has heated the drug material.

2. The implant of claim 1, wherein the drug material is a drug ingredient combined with a heat sensitive release material, and the drug material becomes effective after the release material releases a portion of the drug ingredient.

3. The implant of claim 1, wherein the drug material is a drug ingredient adhered to the implant that is substantially inactive at normal body temperature and that becomes active after the implant has heated the drug ingredient to a temperature where is substantially active.

4. The implant of claim 1, wherein the drug material is a drug ingredient that is to be delivered to tissue adjacent the implant and drug-tissue interaction is enhanced when heat from the implant causes tissue adjacent the implant to rise above normal body temperature when the drug ingredient is present.

5. The implant of claim 1, wherein the implant is a stent and the drug material comprises an active ingredient that inhibits restenosis in the stent.

6. A method of using a drug-coated or drug-loaded implant by heating the implant above a certain temperature at which drug activity in the tissue adjacent the implant starts and maintaining that temperature for a specified period of time.

7. The method of claim 6, wherein the implant is heated by radio frequency (RF) energy.

8. The method as recited in claim 6, wherein the RF energy is generated by a sending antenna outside the patient's body transferring energy to the implant.

9. A method as cited in claim 6, wherein a sending antenna is placed inside the implant by an endovascular catheter inserted through vessels.

10. A method as recited in claim 6, wherein the drug activity is inhibiting proliferation of cells that cause restenosis.

11. An implant for delivery of a drug, comprising:

an implant body capable of heating by exposure to an electromagnetic field; and

a supply of drug material applied to the implant body, said drug material being substantially ineffective after the implant has been heated by exposure to the electromagnetic field and heat energy from the implant has heated the drug material.

12. The implant of claim 11, wherein the drug material is a drug ingredient combined with a heat sensitive release material and the drug material becomes ineffective after the release material is heated.

13. A metallic implant for delivery of a drug, comprising:

a body capable of being heated; and

a layer of drug material applied to the body, said drug material being effective while being heated.

14. A method of using a drug-coated or drug-loaded implant by heating the implant above a certain temperature at which drug activity in the tissue adjacent the implant is substantially enhanced and maintaining that temperature for a specified period of time.

15. An apparatus for delivery of a drug in a body comprising an implantable member with the drug, the member being implanted in the body and controllably heated to elute the drug off of the member to treat the body, wherein the drug is operative when the member is heated.

16. The apparatus of claim 15, wherein heating of the implantable member is invasive and is accomplished by applying a magnetic field over the body.

17. The apparatus of claim 16, wherein the elution of the drug from the implantable member is to treat prostate disease.

18. The apparatus of claim 16, wherein the elution of the drug from the implantable member is to treat diabetic disease.

19. The apparatus of claim 16, wherein the elution of the drug from the implantable member is to treat ophthalmic disease.

20. A method of delivering a drug in a body by controllably heating an implantable member with the drug to elute the drug from the member to treat the body, wherein the drug is operative when the member is heated.

21. An implantable device having at least one coated drug material capable of being heated inductively and delivering the drug material to a body when heated.

22. The device of claim 21, wherein frequency of inductive heat is below 1 MHz.

23. The device of claim 21, wherein the implantable device is a prosthetic device.